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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/712,330   | 11/13/2003  | Richard J. Mazzone   | 7784-000668         | 1965             |
| 27572  | 7590        | 12/14/2005           | EXAMINER            |                  |
| HARNESS, DICKEY & PIERCE, P.L.C.<br>P.O. BOX 828<br>BLOOMFIELD HILLS, MI 48303 |             |                      | TANG, SON M         |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2632                |                  |

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/712,330 | <b>Applicant(s)</b><br>MAZZONE, RICHARD J. |  |
|                              | <b>Examiner</b><br>Son M. Tang       | <b>Art Unit</b><br>2632                    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/21/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9, 12-14, 16-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corl et al. [US 4,870,394; Corl] in view of Duffoo [US 5,899,414].

**Regarding claims 1 and 12-13:** Corl discloses a mobile platform (aircraft) fire detection system, comprising a plurality of smoke detectors locatable in a compartment of a aircraft compartment platform, and an indication panel (10) includes a compartment mimic defines a general configuration of an aircraft platform compartment, said panel located in the cockpit outside of the compartment, said panel operable to identify an alarm condition of each of a smoke detectors [see Fig. 1 and col. 2, lines 16-26]. Corl does not specifically disclose a plurality of heat sensors positioned in the compartment of the aircraft. **Duffoo** teaches a plurality of heat sensors (16) positioned in the various locations in the aircraft [as shown in Fig. 3, col. 4, lines 44-51]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have the heat sensors on the aircraft as taught by Duffoo, for the purpose of enhancing fire monitor on the aircraft.

**Regarding claims 2-3:** Corl and Duffoo made obvious and disclose all the limitations as described above, Corl further discloses that each sensor unit is associated with a warning light 11 [col. 2, lines 22-26].

**Regarding claim 4:** Corl and Duffoo disclose all the limitations as described above, Duffoo further teaches a threshold alarm set point [see col. 4, lines 42-45].

**Regarding claim 5:** Although, Duffoo does not specifically teach that threshold alarm point is approximately 175 degrees F. As long as, it is being detected, employ any known number for the threshold point is not constitutes of inventive step, but it is an obvious of design choice. Therefore, it would have been obvious to one having ordinary skill in the art to have any known threshold point in the sensor as it desired.

**Regarding claims 6-7:** Corl and Duffoo disclose all the limitations as described above, except for not specific about both sensors indication signal is blinking/steady light. As long as, it is being indicated and perceptible. It is obvious of one having ordinary skill in the art at the time the invention was made, to have any appropriate indication that perceptible includes blinking or steady light as claimed.

**Regarding claim 9:** Corl and Duffoo disclose all the limitations as described above, except for specifically teach that the heat sensor is positionable adjacent a compartment door. As long as the sensor is being detected, to depose at any known position such as adjacent a compartment door does not constitute an inventive step, but it is an obvious of design choice. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have heat sensors postionable adjacent a compartment door for user desired.

**Regarding claim 14:** Corl and Duffoo disclose all the limitations as described above, except for not specifically teach that indicator light is a LED. Examiner has taken Official Notice that LED is known in the art use for alarm indicator. It would have been obvious of one

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having ordinary skill in the art at the time of the claimed invention to employ a known LED for light indicator as claimed.

**Regarding claims 16-17:** Corl and Duffoo disclose all the limitations as described above, Corl further disclose that each sensor unit is associated with a warn light 11 which defines zone of aircraft [see col. 2, lines 20-24].

**Regarding claim 18:** Corl and Duffoo disclose all the limitations as described above, except for not specifically teach an addition light being positionable one of within and adjacent to at least one of the compartment zones. Since, the sensor is being detected and provided alarm signal to energize a corresponding light at the panel located at the cockpit, the panel could be located at any appropriate location on the aircraft for convenience reason, or it could have more indicator positionable at any appropriate location within the compartment as well. Therefore, it would have been obvious to one having ordinary skill in the art to have an additional alarm indication positionable at any appropriate location in the compartment, such as adjacent to compartment zones as claimed, so that occupant close to it could identify the alarm location as well.

**Regarding claims 19-20:** Corl and Duffoo disclose all the limitations as described above, Duffoo further teaches that a piece of fire fighting equipment located adjacent to the sensor [see col. 5, lines 46-52], except for not specifically teach a first and second designators positionable on the mimic which visually define a corresponding location of fire fighting equipment located in the compartment. Since, the sensor location is visually defined on the indicator panel of Corl. It is obvious of one having ordinary skill in the art that the designators of fire fighting equipment of Duffoo can be defined, whereby it is located adjacent to the sensor.

**Regarding claims 21-32:** The claimed method steps are interpreted and rejected as rejection stated above.

3. Claims **8, 15 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Corl et al. in view of Duffoo and further in view of Lynch [US 6,351,212].

**Regarding claims 8 and 15:** Corl and Duffoo disclose all the limitations as described above, except for not specifically disclose that sensors indicating lights are defining by first color and second color. Lynch teaches fire event sensors comprising an alarm panel 310 includes a plurality indicating light having various colors that are activated according to signals received from sensors 210, 220, 230 which sense event such as smoke, carbon monoxide and heat [see Fig. 1, col. 3, lines 15-18, col. 4, lines 63-67] which constitutes of a first color visually defining the smoke detector indicators and second color defining head sensor as claimed. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have color indicators as suggested by Lynch, for the benefit of easy to identify the different sensor activated.

**Regarding claim 28:** The claimed method steps are interpreted and rejected as rejection stated above.

4. Claims **10-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Corl et al. in view of Duffoo and further in view of Kimmel et al. [US 6,917,288; Kimmel].

**Regarding claims 10-11:** Corl and Duffoo disclose all the limitations as described above, except for not specifically teach a rate of heat change sensor. **Kimmel** teaches a

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particular floor plan in a building being monitored for fire detection, comprising sensors that can be programmed to sense rate of heat increase and indicating at visual display [see Fig. 1 and col. 14, lines 49-63 and col. 15, lines 18-21]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use a rate of change sensor as taught by Kimmel into the system of combination above, for the benefit of more accurate detection.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

  
Thomas J. Mullen, Jr.  
Primary Examiner  
Art Unit 2632

12-12-05